## PROCESS FOR THE PREPARATION OF N-(PHOSPHONOMETHYL)GLYCINE BY OXIDIZING N-SUBSTITUTED N-(PHOSPHONOMETHYL)GLYCINES

ABSTRACT

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This invention is directed to an improved process for the preparation of N-(phosphonomethyl)glycine (i.e., "glyphosate"), a salt of N-(phosphonomethyl)glycine, or an ester of N-(phosphonomethyl)glycine. The process comprises combining an N-substituted N-(phosphonomethyl)glycine reactant with oxygen in the presence of a noble metal catalyst. The N-substituted N-(phosphonomethyl)glycine reactant has formula (V):

$$R^{7}O - C - CH_{2} - N - CH_{2} - P - OR^{8}$$
 $R^{1} - C - H$ 
 $R^{2}$ 
 $(V)$ ,

wherein R<sup>1</sup> and R<sup>2</sup> are independently selected from the group consisting of hydrogen, halogen, -PO<sub>3</sub>R<sup>12</sup>R<sup>13</sup>, -SO<sub>3</sub>R<sup>14</sup>, -NO<sub>2</sub>, hydrocarbyl, and substituted hydrocarbyl other than -CO<sub>2</sub>R<sup>15</sup>; and R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>12</sup>, R<sup>13</sup>, R<sup>14</sup>, and R<sup>15</sup> are independently selected from the group consisting of hydrogen, hydrocarbyl, substituted hydrocarbyl, and an agronomically acceptable cation.